

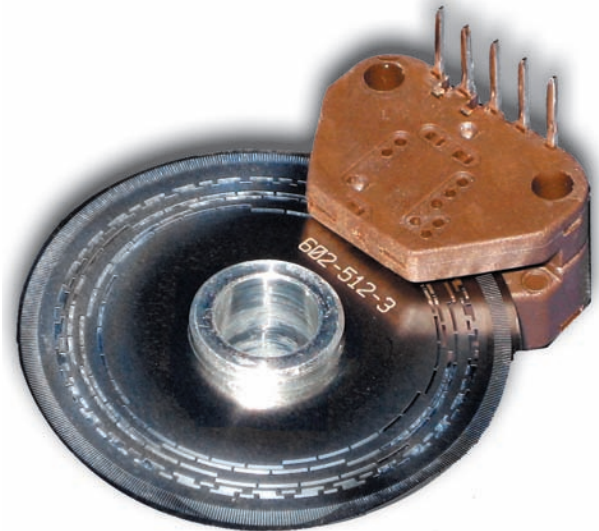
SERIES M602 & M832

Dynapar™ brand

Kit Encoder

Key Features

- Compact Size for Easy Integration
- Advanced Phased-Array Sensor Technology with Digital or Analog Output
- Available with Unbreakable Plastic or Stainless Code Discs
- Commutation Tracks Available for Brushless Motor Commutation
- Line Driver Output Board Available



SPECIFICATIONS

ELECTRICAL

Code: Incremental
Resolution: See ordering information for standard resolutions
Supply Voltage: 5Vdc + 10% at 60mA maximum
Output Format: Dual channel quadrature
Output Format Options: Index and commutation. *ComTracks available on Digital version only*
Output Type – Digital: Square wave, TTL and CMOS compatible, 10mA sink
Output Type – Analog: Current Source
Frequency Response: 125 kHz (data and index)

MECHANICAL

Dimensions: See module outline dimensions
Weight: <0.25 ounces
Termination: .025 sq. discrete pins
Materials
Module: Molded PPS 40% glass (R-4)
Pins: gold plated
Disc: mylar or etched metal
Hub: aluminum

Disc Interface

Runout: 0.005 inches TIR
Endplay: + 0.010 inches
Optical Radius (data): 0.602 or 0.832 inches

Motor Interface

Mounting Holes: See recommended mounting

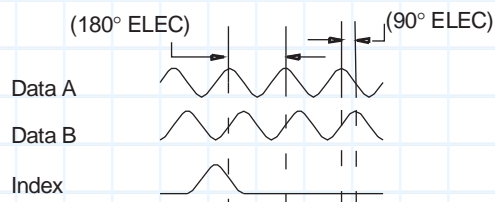
Connector Interface

Molex Connector: P/N 50-57-9005
Molex Socket: P/N 16-02-0069
AMP Connector: P/N 87499-9
AMP Socket: P/N 87667-3

ENVIRONMENTAL CONDITIONS

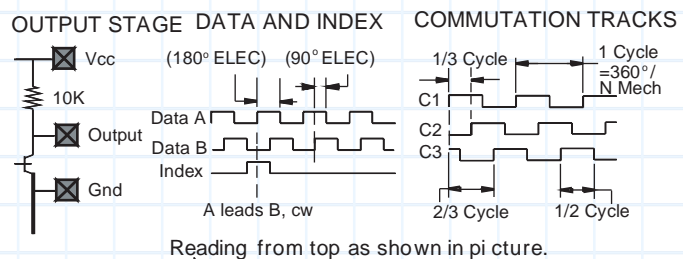
Operating Temperature: -40° to 100°C (non-condensing)
Storage Temperature: -40° to 100°C
Enclosure: Unsealed housing

Analog Output Wave Forms



Output signal shown after analog signal processing

Digital Output Format



Reading from top as shown in picture.

ORDERING INFORMATION

To order, complete the model number with code numbers from the table below:

<p>Encoder Module (Rotary)</p> <p>Digital M 602 - 1000 - 3T - See Note</p> <p style="text-align: center;">1. 2. 3.</p>	<p>Code Disc and Hub</p> <p>DH 602 - 1000 - 0 - 25</p> <p style="text-align: center;">1. 2. 3. 4.</p>																
<p>Analog AM 602 - 2000 - 6T</p> <p style="text-align: center;">1. 2. 3.</p>	<p>Code Disc Only (no Hub)</p> <p>D 602 - 1000 - 0</p> <p style="text-align: center;">1. 2. 3.</p>																
<p>1. Optical Radius</p> <p>0.602 inches 602 0.832 inches 832</p> <p>2. Standard Resolutions</p> <p>Digital 602 Module Resolutions from 35 to 3600. See "Current Resolutions" list.</p> <p>Digital 832 Module Resolutions from 360 to 5000 See "Current Resolutions" list.</p> <p>Analog 602 Module Available Resolutions: 1000 & 1024</p> <p>Analog 832 Module Available Resolutions: 2000 & 2048</p> <p>3. Lead Positions</p> <p>Digital</p> <table style="width: 100%;"> <tr> <td>Side Exit</td> <td>Top Exit</td> </tr> <tr> <td>A 1S</td> <td>A 1T</td> </tr> <tr> <td>AB 2S</td> <td>AB 2T</td> </tr> <tr> <td>ABZ 3S</td> <td>ABZ 3T</td> </tr> <tr> <td></td> <td>ABZ + COMS 6T</td> </tr> </table> <p>Analog</p> <p>Top Exit</p> <p>ABZ 6T</p>	Side Exit	Top Exit	A 1S	A 1T	AB 2S	AB 2T	ABZ 3S	ABZ 3T		ABZ + COMS 6T	<p>1. Disc Outside Diameter</p> <p>1.30 inches 602 1.75 832</p> <p>2. Standard Resolutions See "Current Resolutions: list.</p> <p>3. Commutation Tracks (Option) (Available on 6T digital module only) Not required 0 Specify 2, 3, 4, 6 or 8 motor pole pairs</p> <p>4. Hub Bore Size*</p> <table style="width: 100%;"> <tr> <td>1/4 inch 25</td> <td>6mm 6M</td> </tr> <tr> <td>3/8 inch 38</td> <td>8mm 8M</td> </tr> <tr> <td></td> <td>10mm 10M</td> </tr> </table> <p>*Consult factory for other sizes</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>NOTE: When ordering Modules with Index add a "G" to the end of the part number for GATED INDEX or "U" for UNGATED INDEX.</p> <p><i>Note: Gated Index only available on Doubler Modules.</i></p> <p>When ordering Modules in 1000 or 1024PPR to specify DOUBLER CIRCUIT add a "D" to the last digit. Example: M602-1000-3T-UD</p> </div>	1/4 inch 25	6mm 6M	3/8 inch 38	8mm 8M		10mm 10M
Side Exit	Top Exit																
A 1S	A 1T																
AB 2S	AB 2T																
ABZ 3S	ABZ 3T																
	ABZ + COMS 6T																
1/4 inch 25	6mm 6M																
3/8 inch 38	8mm 8M																
	10mm 10M																

RESOLUTIONS

M602 Digital Modules

1, 24, 25, 35, 40, 60, 100, 120, 192, 200, 240, 250, 256, 300, 360, 500, 512, 600, 625, 720, 1000*, 1024*

* Available as direct read or doubler

Doubler: 1000, 1024, 1200, 1250, 1440, 2500, 2540, 2600 3600

With Commutation for Brushless Motors:

CPR	Pole Pairs
500	5 or 6
512	3 or 6

M832 Digital Modules

Direct Read: 360, 1000, 1024

Doubler: 2000, 2048, 3600, 4096, 5000

With Commutation for Brushless Motors:

CPR	Pole Pairs
1000	2, 3, 4, 6 or 8
1024	6

AM602/AM832 Analog Modules

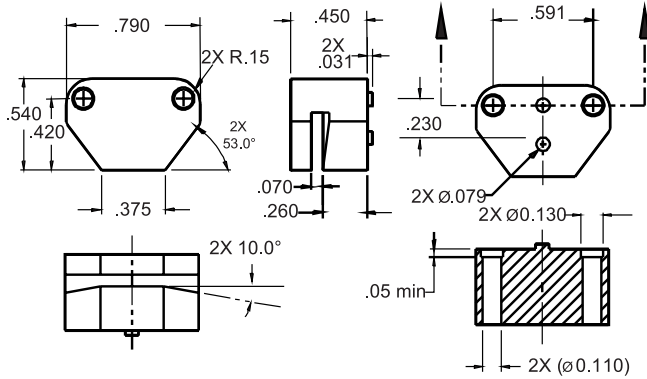
AM602	AM832
1000,	1024 2000, 2048

Analog Modules available in -6T configuration only
For new Disc resolutions or radii please consult factory for availability and NRE. We are constantly adding new resolutions so if the one you require is not listed please call the factory for availability

SERIES M602 & M832



Module Outline Dimensions

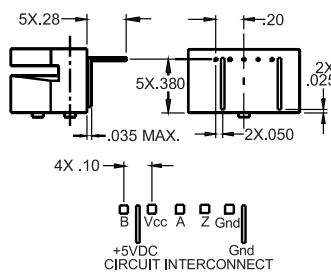


Pin Layouts

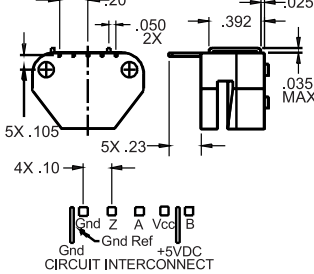
The Optical Encoder Modules come standard in either top mount or side mount with A,B, and Index Channels. Commutation Channels are optionally available for Digital modules in top-mounted configurations only.

ABZ CONFIGURATION 5X .025 square pins

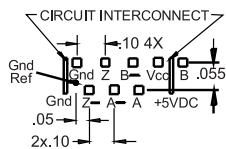
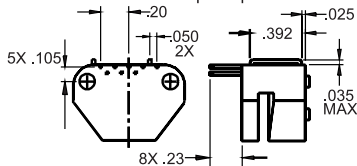
SIDE MOUNT (-1S, -2S, -3S)



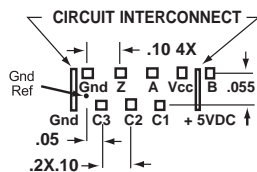
TOP MOUNT (-1T, -2T, -3T)



ANALOG CONFIGURATIONS (-6T) 8X .025 square pins



Analog Pinouts



Digital Pinouts

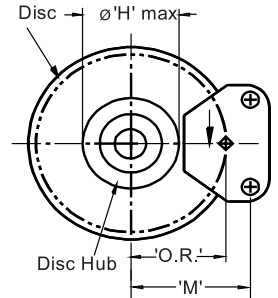
Module Interface

Module 602

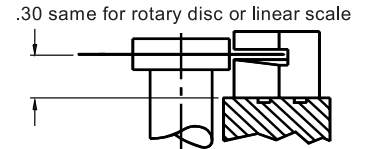
'O.R.' – Optical Radius 0.602 in.
'M' – Mounting dimension .. 0.756 in.
Ø 'H' – Hub Maximum O.D. .. 0.061 in.

Module 832

'O.R.' – Optical Radius 0.832 in.
'M' – Mounting dimension... 0.986 in.
Ø 'H' – Hub maximum O.D... 1.07 in.



DISC MOUNTING



Disc and Hub Dimensions

Module 602 Disc and Hub

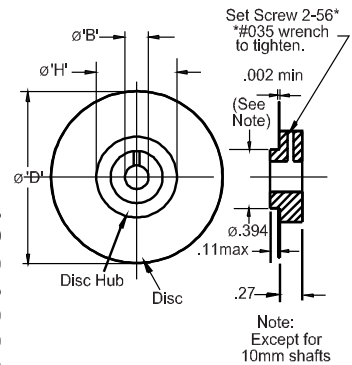
Ø'D' – Disc O.D. 1.30 in.
Ø 'H' – Hub O.D. 0.61 in.

Module 832 Disc and Hub

Ø'D' – Disc O.D. 1.75 in.
Ø 'H' – Hub O.D. 1.00 in.

Shaft Size Hub Bore Sizes

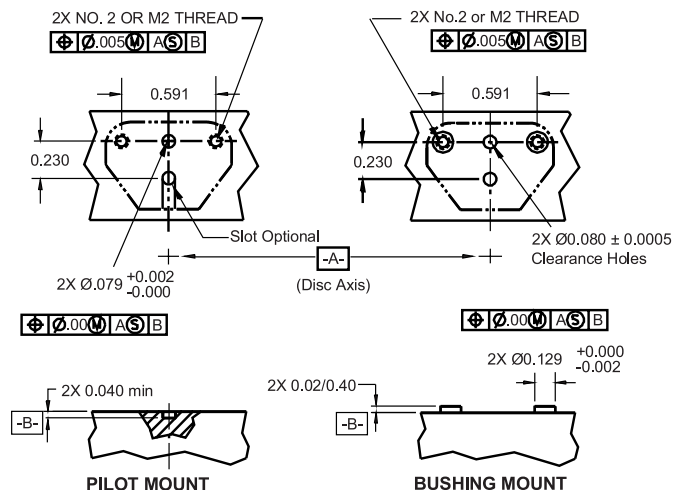
	Ø'B' in.	Ø'B' mm
	+0.005	+0.13
	+0.000	-0.00
1/4 in.	.2500	6.350
3/8 in.	.3750	9.525
6 mm	.2362	6.000
8 mm	.3150	8.000
10 mm	.3937	10.000



Disc only

.3942 I.D. x .002 min. thick

Recommended Mounting Configurations



Dynapar™ brand



Worldwide Brands: NorthStar™ • Acuro™ • Dynapar™ • Hengstler™ • Harowe™

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